



MODIS Science Team Meeting Atmosphere Group Summary

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MODIS Atmosphere Group Summary

Effect of shortwave and longwave calibration results on Atmosphere algorithms:

- **MOD04 (Aerosols) and MOD06 (Cloud Retrieval) affected most**
- **5.4 μ light leak in SWIR worst for “dry” atmosphere, warm surface and low sun**
- **Atmosphere concerned that crosstalk between SWIR bands needs to be characterized; Guenther will provide additional analysis, and Atmosphere algorithm developers will assess impacts**
- **For SWIR bands, characterization at 0 - 0.3L typical is required**
- **“Subsampling” whereby Bands 5 and 7 are well-characterized for different pixels than Band 6 is a major concern**



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Data product status update (preparation for November EOSDIS review):

- **Cloud Optical Thickness and Effective Radius delivered on September 1**
- **Aerosol Product and Water Vapor delivery to SDST by November 1**
- **Cloud Mask delivery to SDST by November 15**
- **Cloud Contrast Detection to SDST by November 15**
- **Atmospheric Profiles by December 1**
- **Cloud Top and IR Phase delivery to SDST by December 15**
- **Level 3 delivery: Daily by November 15, and Monthly by December 15**
 - Execution requires Version 7.2 of Fortran compiler (Fortran 90)
 - Zonal tiling not anticipated to be a problem



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Validation:

- **Kaufman and Pincus attended WAVES Workshop; roughly 10% of newly-selected investigations applicable to MODIS Atmospheres**
- **Kalahari desert campaign planned for August/September 1999; coordinated effort with MODLAND and others**
 - **First priority: University of Washington CV-580**
 - **Cloud imagers, flux radiometers**
 - **Lidar**
 - **Aerosol and cloud microphysics**
 - **Atmospheric chemistry**
 - **Second priority: NASA ER-2**
 - **Transit opportunities after Saharan dust and Namibian stratus**



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Atmosphere Group meeting (tentatively) early February:

- **Run test cases in advance with existing MAS data sets, MODIS algorithms, and compare results**

Future/Reduced MODIS

- **Confirmed products-to-bands matrix; discussed future possibilities**



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Update on GLI:

- Have revised data flow diagram as suggested by MODIS
- Will use 16-bit Cloud Mask

Demonstration of UW MODIS Visualization Tool

- Very user -friendly, runs on any platform
- Available via WWW; contact Liam Gumley